



CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

SURFACE MOUNT ZENER
SILICON PLANAR POWER ZENER DIODES
VOLTAGE RANGE 2.4V TO 39V

CHTZ2V4GP

THRU

CHTZ39VGP

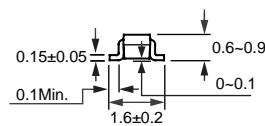
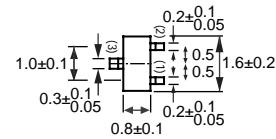
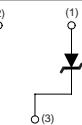
FEATURE

- * Small surface mounting type. (SC-75)
- * High temperature soldering type.
- * Silicon planar zener diodes.
- * Silicon-oxide passivated junction.
- * Low temperature coefficient voltage



SC-75/SOT-416

CIRCUIT



Dimensions in millimeters

SC-75/SOT-416

MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	VALUE	UNITS
Zener Current (see Table "Characteristics")	-	-	-
Max. Steady State Power Dissipation @ TA=25°C	P _D	150	mW
Max. Operating Temperature Range	T _J	-65 to +150	°C
Storage Temperature Range	T _{STG}	-65 to +150	°C

ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	MIN.	TYP.	MAX.	UNITS
Thermal Resistance Junction to Ambient	R _{θJA}	-	-	833	°C/W
Max. Instantaneous Forward Voltage at If= 10mA	V _F	-	-	0.9	Volts

NOTES : 1. Device Mounted on FR-4 PC board with recommended pad layout

2010-10

2. Valid provided that electrodes at distance of 10mm from case are kept ambient temperature.

3. Measured under thermal equilibrium and DC test conditions.

4. The rating listed in the electrical characteristics table is maximum peak, non-repetitive, reverse surge current of 1/2 square wave or equivalent sine wave pulse of 1/120 second duration superimposed on the test current, I_{ZT}, per JEDEC registration.

ELECTRICAL CHARACTERISTICS (CHTZ2V4GP THRU CHTZ39VGP)

TYPE	Zener Voltage VZ (V) @ IZT			Test current	Maximum Zener impedance			Maximum reverse leakage current		Temperature Coefflent of Zener Voltage @ Izt=5mA(mV/°C)	
	Min	Nom	Max		Zzt at Izt (Ω)	Zzk (Ω)	at Izk (mA)	IR (uA)	at VR (V)	Min	Max
	Volts	Volts	Volts	Izt(mA)							
CHTZ2V4GP	2.2	2.4	2.6	5	100	600	1	50	1	-3.5	0
CHTZ2V7GP	2.5	2.7	2.9	5	100	600	1	20	1	-3.5	0
CHTZ3V0GP	2.8	3.0	3.2	5	95	600	1	20	1	-3.5	0
CHTZ3V3GP	3.1	3.3	3.5	5	95	600	1	5.0	1	-3.5	0
CHTZ3V6GP	3.4	3.6	3.8	5	90	600	1	5.0	1	-3.5	0
CHTZ3V9GP	3.7	3.9	4.1	5	90	600	1	3.0	1	-3.5	0
CHTZ4V3GP	4.0	4.3	4.6	5	90	600	1	3.0	1	-3.5	0
CHTZ4V7GP	4.4	4.7	5.0	5	80	600	1	3.0	2.0	-3.5	0.2
CHTZ5V1GP	4.8	5.1	5.4	5	60	500	1	2.0	2.0	-2.7	1.2
CHTZ5V6GP	5.2	5.6	6.0	5	40	480	1	1.0	2.0	-2.0	2.5
CHTZ6V2GP	5.8	6.2	6.6	5	10	400	1	3.0	4.0	0.4	3.7
CHTZ6V8GP	6.4	6.8	7.2	5	15	150	1	2.0	4.0	1.2	4.5
CHTZ7V5GP	7.0	7.5	7.9	5	15	80	1	1.0	5.0	2.5	5.3
CHTZ8V2GP	7.7	8.2	8.7	5	15	80	1	0.7	5.0	3.2	6.2
CHTZ9V1GP	8.5	9.1	9.6	5	15	80	1	0.5	6.0	3.8	7.0
CHTZ10VGP	9.4	10	10.6	5	20	100	1	0.2	7.0	4.5	8.0
CHTZ11VGP	10.4	11	11.6	5	20	150	1	0.1	8.0	5.4	9.0
CHTZ12VGP	11.4	12	12.7	5	25	150	1	0.1	8.0	6.0	10.0
CHTZ13VGP	12.4	13	14.1	5	30	150	1	0.1	8.0	7.0	11.0
CHTZ15VGP	13.8	15	15.6	5	30	170	1	0.1	10.5	9.2	13.0
CHTZ16VGP	15.3	16	17.1	5	40	200	1	0.1	11.2	10.4	14.0
CHTZ18VGP	16.8	18	19.1	5	45	200	1	0.1	12.6	12.4	16.0
CHTZ20VGP	18.8	20	21.2	5	55	225	1	0.1	14	14.4	18.0
CHTZ22VGP	20.8	22	23.3	5	55	225	1	0.1	15.4	16.4	20.0
CHTZ24VGP	22.8	24	25.6	5	70	250	1	0.1	16.8	18.4	22.0
CHTZ27VGP	25.1	27	28.9	2	80	250	0.5	0.1	18.9	21.4	25.3
CHTZ30VGP	28	30	32	2	80	300	0.5	0.1	21	24.4	29.4
CHTZ33VGP	31	33	35	2	80	300	0.5	0.1	23.1	27.4	33.4
CHTZ36VGP	34	36	38	2	90	325	0.5	0.1	25.2	30.4	37.4
CHTZ39VGP	37	39	41	2	130	350	0.5	0.1	27.3	33.4	41.2

RATING CHARACTERISTIC CURVES (CHTZ2V4GP THRU CHTZ39VGP)

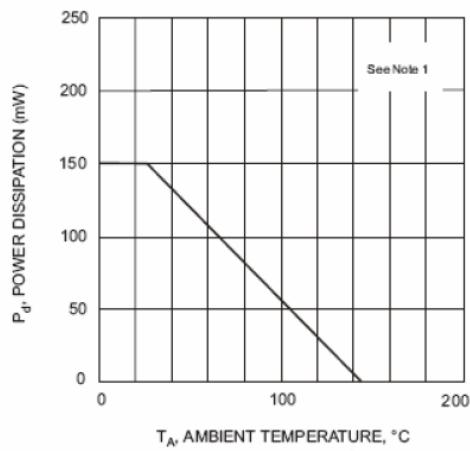


Fig. 1. Power Derating Curve

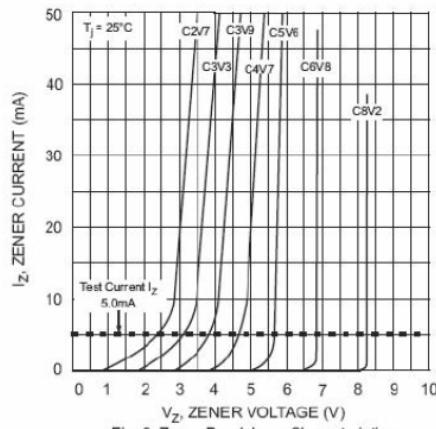


Fig. 2 Zener Breakdown Characteristics

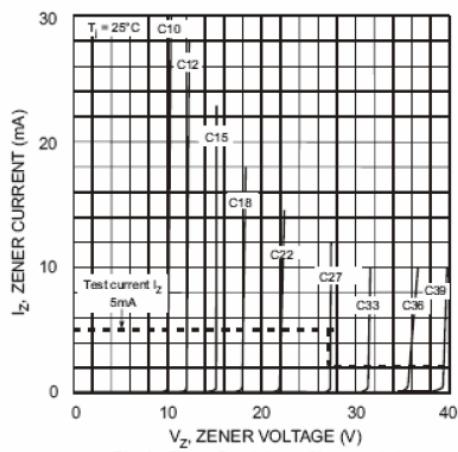


Fig. 3. Zener Breakdown Characteristics

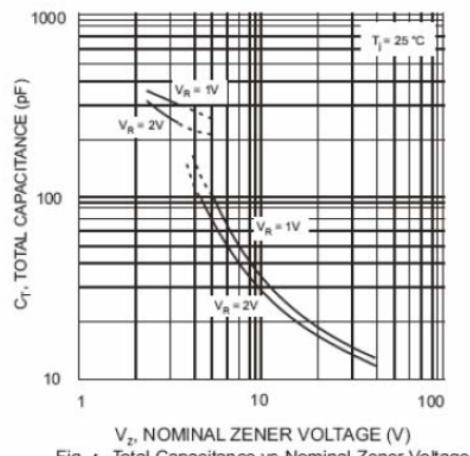


Fig. 4 Total Capacitance vs Nominal Zener Voltage